

10/629/73

METHOD OF FABRICATING LONG-WAVELENGTH VCSEL
AND APPARATUS

Field of the Invention

This invention relates to a method of fabricating a vertical cavity surface emitting laser which is capable of emitting long-wavelength light and to the vertical cavity surface emitting laser.

Background of the Invention

Vertical cavity surface emitting lasers (VCSELs) include first and second distributed Bragg reflectors (DBRs) formed on opposite sides of an active area. The VCSEL can be driven or pumped electrically by forcing current through the active area or optically by supplying light of a desired frequency to the active area. Typically, DBRs or mirror stacks are formed of a material system generally consisting of two materials having different indices of refraction and being easily lattice matched to the other portions of the VCSEL. In conventional VCSELs, conventional material systems perform adequately.

